



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/083,681	02/26/2002	Clyde Fraisse	10787-004001	9429

26191 7590 10/07/2003

FISH & RICHARDSON P.C.  
3300 DAIN RAUSCHER PLAZA  
60 SOUTH SIXTH STREET  
MINNEAPOLIS, MN 55402

EXAMINER

BATSON, VICTOR D

ART UNIT PAPER NUMBER

3671

DATE MAILED: 10/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/083,681

Applicant(s)

FRAISSE ET AL.

Examiner

Victor Batson

Art Unit

3671

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5. 6) ☐ Other: \_\_\_\_\_

Art Unit: 3671

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,2,5-23,26-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hauwiller et al. (6,236,907).

Hauwiller et al. discloses a system for providing a map of site-specific amounts of a soil nutrient including calculating site-specific field characteristic data for the field. Hauwiller et al. specifically discloses that it is desirable to use the field characteristics to determine optimum dispensing levels. Hauwiller et al. does not specify that the measured site-specific amounts of soil nutrient are subtracted from the amounts of soil nutrient needed to produce a maximum possible crop yield. In the agricultural art optimum fertilizing rates are rates that provide maximum crop yield, and maximum crop yield is a desirable and universally sought after result in the farming and agricultural arts. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify the system of Hauwiller et al. by using the field characteristics to achieve maximum possible crop yield by subtracting the determined amount of soil nutrients from the amount of nutrients needed to produce a maximum possible crop yield, to achieve a maximum possible crop yield.

Concerning claims 6-13,17-21, the examiner take official notice that nitrogen, phosphorous, potassium, organic fertilizer, micronutrient, manure, Zn and Fe are all soil

Art Unit: 3671

nutrients known in the art to be applied to fields to enhance crop yield. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to use the claimed soil nutrients with the system of Hauwiller et al., since the system is used to apply various soil nutrients to fields.

Claims 3,4,24,25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hauwiller et al. (6,236,907) in view of Biggs et al. (6,393,927).

Hauwiller et al. discloses a system for providing a map of site-specific amounts of a soil nutrient as described previously, but lacks using a leaf area index as part of the data.

Biggs et al. teaches that it is known in the art to use leaf area index as part of a fertilizer application system that applies nitrogen. The leaf area index of Biggs et al. provides an accurate measurement of real time crop nitrogen status that can be used with a fertilizer application system.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Hauwiller et al. by using a leaf area index as taught by Biggs et al. to provide an accurate measurement of crop nitrogen for use when the system is used to apply nitrogen fertilizer.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Art Unit: 3671

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor Batson whose telephone number is (703) 305-6356. The examiner can normally be reached on Monday through Friday (except Wednesday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Will can be reached on (703) 308-3870. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1115.

A handwritten signature in black ink, appearing to read "Victor Batson". The signature is fluid and cursive, with the first and last names being clearly legible.

Victor Batson  
Primary Examiner  
Art Unit 3671